

Having always found in the South American guano more distinct traces of lithate of ammonia than in the African, he inquires whether the difference may not be owing to different states of atmosphere in the two regions;—in the one, the clouded state of the air impeding the sun's rays; in the other, the usually unclouded state interposing no obstacle to their full effect. He inquires too, whether the circumstance of the comparatively rapid conversion of lithic acid into the oxalic under the influence of light, as witnessed in the experiment detailed, may not account for even recently formed guano being destitute of lithate of ammonia; and he mentions an example in point, namely, a specimen he had received from the island of Ichabor being found with a large quantity of oxalate of ammonia, to contain no lithate of ammonia,—a specimen described as “having been scraped off a rock, where it was in a thin layer, and much exposed to the sun.”

2. “An Account of the Newtonian Dial presented to the Royal Society, in a letter to the President.” By the Rev. Charles Turnor, F.R.S.

The dial here described was taken down in the early part of the present year from the south wall of the Manor-house of Wools-thorpe, a hamlet to Colsterworth in the county of Lincoln, the birth-place of Newton. It was marked on a large stone at the angle of the building, and about six feet from the ground. The name of NEWTON, with the exception of the first two letters, which have been obliterated, are inscribed under the dial in wide and capital letters. The gnomon has disappeared many years ago.

3. “On the Non-coincidence of the Focus of the Photogenic Rays with that of the Visual Rays of the Solar Spectrum.” By M. A. Claudet. Communicated by S. Hunter Christie, Esq., Sec. R.S., &c.

After detailing the difficulties he had met with in obtaining perfect pictures when a lens, accurately corrected for spherical and chromatic aberration, was employed in the Daguerreotype process, the author states that in order to obtain a clear and well-defined image of any object on the Daguerreotype plate, he generally found it necessary to adjust the focus on the ground glass by another object brought considerably nearer to the camera than the object whose picture was required. When this adjustment is made, he proceeds to apply the principle practically to the taking of portraits. He finds that in achromatic object-glasses the focus of photogenic action is not coincident with the visual focus; and the distance between these two foci varies according to the nature of the combination of the glasses, to their different dispersive powers, and to the degree of intensity of the light. By attention to these circumstances in accurately adjusting the Daguerreotype plate to the situation of the focus of the photogenic rays, the author has succeeded in obtaining the most perfect delineations of objects.

4. “Observations on some of the Nebulæ.” By the Earl of Rosse, F.R.S.